

**INTRODUCTION**

Deposits/borrowed funds, liquidity management, and funds management are integrally related. It is recommended that Handbook Sections 530, Cash Flow and Liquidity Management, and 510, Funds Management, be reviewed in conjunction with this Section.

The OTS reinvented its deposit rules October 22, 1997. This regulatory reinvention streamlined the regulations by eliminating outdated provisions as well as provisions that duplicated or overlapped other applicable requirements such as the Truth in Savings Act, and Federal Reserve Board Regulations D (Reserve Requirements) and DD (Truth in Savings), which apply to savings associations as well as banks. Additionally, OTS codified its long-standing position on federal preemption of state laws affecting deposit-related activities. OTS also consolidated all deposit-related regulations, except definitions, in a new Part 557.

**DEPOSITS**

Deposits typically represent the largest source of a thrift's funds. Therefore, it is important that the thrift implement policies and procedures to generate and retain its deposit base as well as to monitor its overall deposit structure. An effective deposit management program should include all of the following elements:

- A clearly defined marketing strategy within the business plan that identifies the desired market share in terms of growth or shrinkage, market niche, and present and potential competition.
- Identification of core and volatile deposits and analysis of the cost of core and volatile deposits, including operating costs to maintain the various deposit products and deposit branches, and targeted spreads between deposit costs and earnings on assets funded by deposits.
- Periodic analysis of present and anticipated funding and liquidity needs, and comparative analysis of costs of deposits versus alternative sources of funds to meet those needs.

- Frequent review of deposit pricing, volume, sources, volatility, and trends in relation to overall funds management goals, interest rate risk exposure, spread, net interest margin, and profitability.

Core deposits are important in evaluating the stability of funding sources and costs, and in measuring liquidity risk. Core deposits may include regular and passbook savings, certificates of deposit (CDs), and various types of retirement and special savings. Typically, core accounts carry high average operating expenses and low deposit balances. Although, by definition, a stable source of funds, some core deposits will be lost over time if interest rates paid become noncompetitive.

**Types of Deposit Accounts**

The regulator's efforts to analyze the character of the overall deposit structure should be directed to types of deposit accounts shown by experience to be significant in presenting problems to management. The following paragraphs discuss common types of deposit accounts and practices that, under certain circumstances, can become problems.

- *Brokered and Money Desk-Originated Deposits:* Brokered deposits are usually obtained through a broker acting as an intermediary between the thrift and the depositor. Money desk operations are usually staffed by in-house personnel. Brokered and money desk-solicited deposits are a volatile and usually high-cost source of deposits. The cost is usually high because of higher interest rates needed to attract volume. Operating costs such as the fees paid to brokers and salaries or commissions paid to money desk personnel also contribute to the cost of these deposits. The depositors have no loyalty to the thrift. Brokered and money desk deposits are highly susceptible to withdrawal if interest rates paid become noncompetitive or the solvency of the thrift is threatened.

A high volume of high interest rate, short-term brokered or money desk-originated deposits

usually indicates excessive risk. Active solicitation of such deposits without the benefit of a well-designed risk management program is unsafe and unsound.

- *Bank Investment Contracts (BIC)*: BICs are a deposit contract between a financial institution and its customer that permits the customer to deposit funds over a period of time and obligates the "bank" to repay the amounts deposited plus interest at a guaranteed rate to the end of the contract. A BIC is the counterpart of the insurance industry's Guaranteed Investment Contract (GIC). The customers for BICs and GICs are, in most cases, sponsors of employee benefit plans such as pension plans or deferred compensation plans that qualify under section 401(k) of the Internal Revenue Code (commonly referred to as "401(k) Plans").

### Brokered Deposit Restrictions

Section 301 of the Federal Deposit Insurance Improvement Act (FDICIA) of 1991 mandated that the Federal Deposit Insurance Corporation (FDIC) place limitations on brokered deposits and deposit solicitations. Section 337.6 of the FDIC regulations applies to all thrifts and restricts the use of brokered deposits on the basis of capital adequacy. Under the regulation, institutions are divided into categories of well-capitalized, adequately capitalized, and undercapitalized condition. Only well-capitalized institutions may continue to accept brokered deposits without restrictions. Adequately capitalized institutions must now obtain a waiver from the FDIC in order to continue accepting brokered deposits. Undercapitalized institutions are prohibited from accepting brokered deposits.

Well-capitalized institutions are defined in the regulation based on § 38 of the Federal Deposit Insurance Act dealing with prompt corrective action.

A well-capitalized institution has:

- a ratio of total capital to risk-weighted assets of not less than 10 percent;
- a ratio of tier 1 capital to risk-weighted assets of not less than 6 percent;

- a ratio of tier 1 capital to total book assets of not less than 5 percent; and
- not been notified by the Office of Thrift Supervision (OTS) that it is in troubled condition.

An adequately capitalized institution is defined as neither well-capitalized nor undercapitalized.

An undercapitalized institution fails to meet minimum OTS regulatory capital requirements.

Adequately capitalized institutions must now obtain an FDIC waiver in order to accept, renew, or roll over brokered deposits. An adequately capitalized institution that needs a waiver should contact the appropriate OTS regional office to coordinate filing the waiver application with the FDIC. A copy of the waiver application should be submitted to the OTS regional office.

Adequately capitalized institutions are restricted as to the interest they may pay on brokered deposits. Any adequately capitalized institution that has been granted a waiver to accept, renew, or roll over a brokered deposit may not pay an effective yield on the deposits that exceeds the following yield by 75 basis points: (1) the effective yield paid on deposits of comparable size and maturity in such institution's normal market area for deposits accepted from within its normal market area or (2) the national rate paid on deposits of comparable size and maturity for deposits accepted outside the institution's normal market area. The FDIC has established that the national rate shall be 120 percent of the current yield on similar U.S. Treasury obligations; or in the case of any deposit that is at least half uninsured, 130 percent of such yield.

A deposit broker may not solicit or place any deposit with an insured depository institution unless it provides a notice to the FDIC that it is acting as a deposit broker.

OTS staff should refer to definitions and provisions of § 337 of the FDIC regulations to determine compliance with the brokered deposits provisions.

Deposit development and brokered deposit retention policies should recognize the following issues:

- Restriction on accepting, renewing or rolling over brokered deposits.
- Limits imposed by prudent competition.
- The risks of over-reliance on brokered deposits as a funding source.

Regulators should monitor their caseload of undercapitalized thrifts to identify violations of the prohibition on brokered deposits. If a thrift is in violation of the prohibition, staff should communicate this fact to the FDIC, request progress reports from the thrift regarding its disposition of brokered deposits, and initiate corrective action to ensure that the thrift ceases its violation.

- *Out-of-Area Accounts:* A high volume of deposits from customers who reside or conduct their business outside of the normal market area should be monitored by the thrift and reviewed by the regulator regarding their volatility and pricing. Such deposits may be the product of personal relationships or good customer service. However, large out-of-area deposits sometimes are related to liberal credit accommodations or have been attracted by paying significantly higher rates of interest than offered by competitors. Such deposits might prove costly in terms of excessive credit risks taken to generate sufficient revenue to pay for volatile, overpriced deposits.

Only well-capitalized institutions may accept, renew, or roll over such deposits without restriction. Adequately capitalized institutions are subject to the interest rate caps described above.

- *Public Funds:* Public funds deposits should be reviewed because of their size and potential volatility. Public funds normally fluctuate on a seasonal cycle following the timing differences between tax collections and expenditures. Government officials controlling public deposits have a responsibility to ensure that such deposits are placed with a financial institution that can provide or arrange the best service at the

least cost, and often place deposits with the highest bidder. Frequently, state laws require financial institutions to pledge collateral against public funds deposits. Public funds deposits acquired through political influence should always be regarded as volatile.

- *Stock Market-Indexed Certificates of Deposit:* Certificates of deposit with interest rates tied to a stock market index where a deposit brokerage firm covers the risk of increasing index values still entail certain risks. The movements of such indexes are subject to fluctuations that are unpredictable and, compared with the usual indexes used for variable-rate certificates of deposit, extraordinary. Pursuant to safety and soundness concerns, a savings association issuing such accounts must take precautionary measures. Accordingly, savings associations that offer variable-rate certificates of deposit tied to a stock market index must:
  - Have the skills required to effectively analyze the potential interest expenses of the account.
  - Take precautionary measures to ensure that it will not be subject to the payment of unrestrained interest expenses.
  - Analyze the creditworthiness and financial strength of the brokerage firm, including the broker's specific plans to cover its interest rate risk exposure due to both upward or downward movements in the index.
  - Have on file a record (for example, a broker's periodic status report) sufficient to disclose the broker's ongoing interest rate risk exposure from the date the association paid its "fixed fees" for receipt of the savings to the date of such a report.
  - Ensure that the brokerage firm is contractually obligated to appropriately reimburse it in the event of an early withdrawal in view of an association's initial payment of a "fixed fee," representing prepaid interest costs paid on the assumption that the certificates will be held to maturity.

- Comply with the safety and soundness requirements of § 563.174 and § 563.175 of the OTS regulations and TB 13 if engaged in the interest rate futures or financial options transactions to cover interest rate risk exposure resulting from the issuance of these market-indexed accounts.
  - Document the board of directors' approval of the form of account. The form must comply with the requirements of applicable law and regulations and the association's charter and bylaws; the minutes must include a detailed explanation as to how the interest rate risk exposure is to be covered. Otherwise comply with the requirements in §563.7.
  - Comply with all other potentially applicable laws or regulations, such as those that the Securities and Exchange Commission and the Commodity Futures Trading Commission enforce. In light of this requirement, savings associations must consult with those agencies regarding the issuances of stock market-indexed certificates of deposit, or obtain for the file a legal opinion stating that the market-indexed CDs comply with all applicable law.
  - *Large Deposits:* Large deposits are defined as those concentrations of funds under one control, or payable to one entity, that aggregate two percent or more of the institution's total deposits.
  - *Demand Deposits:* Both bank and savings associations are prohibited from paying interest on demand deposits. The banking agencies (FDIC and FRB) have issued interpretations that permit premiums to be paid and describe when premiums will not be considered to be interest. Institutions may pay any premium that is not, directly or indirectly, related to or dependent on the balance in a demand deposit account and the duration of the account balance. OTS agrees that such premiums are not interest and generally follows the banking agencies interpretations on this point.
  - *Sweep Accounts:* These are cash managed services that permit customers to earn interest on otherwise idle cash balances. Many institutions, particularly large, commercial banks and some savings associations, now offer these services to retail commercial and trust companies. Sweep accounts automatically "sweep" cash balances out of a checking or non-interest bearing deposit account into short term, typically overnight, investments outside the depository institution. A widely used vehicle by depository institutions is to "sweep" funds out of checking accounts into money market mutual funds that operate independently of the bank/savings association. Funds are swept from checking accounts into a money market mutual fund as frequently as every day after the close of business at the depository institution. The "sweep" is triggered by the amount of cash in the deposit account, which can be set by the depositor. The "sweep" also may be reversed so that shares in the money market mutual fund are redeemed and cash is deposited into the checking or non-interest bearing account at certain times or when certain dollar limits are reached. Depository institutions receive a fee for the "sweep" service.
- The impetus for "sweep" accounts results from the statutory and regulatory prohibition on the payment of interest on demand accounts. Commercial checking accounts are non-interest bearing demand deposits owned by commercial entities, and against which checks may be written. Negotiable order of withdrawal (NOW) accounts are available only to individuals, including sole proprietorships or an unincorporated business owned by a husband and wife; non-profit organizations and for the deposit of public funds. While not technically demand deposits, NOW accounts permit the payment of interest on accounts which are subject to check writing but only for entities that qualify to use them. Because individuals and certain other non-corporate entities may hold NOW accounts which function as checking accounts, "sweep" arrangements for non-corporate entities do not necessarily raise legal questions. Since interest may be paid on NOW accounts held by individuals and certain non-corporate entities, "sweep" accounts are geared

heavily toward corporations. It is essential that depository institutions have systems in place to ensure that "sweep" accounts comply with regulatory requirements.

Federal savings associations, unlike national banks, do not have the authority to directly invest customers' funds in mutual funds. Federal savings associations may, however, accomplish the same result for their customers through service corporations or with third-party broker-dealers. The service corporation or third party, pursuant to an agreement with the customer/depositor, could in turn buy mutual fund shares for the customer and sell those same investments the next day. Upon sale, the sale proceeds belong to the depositor, who may deposit the proceeds back into the checking account at the federal savings association. "Sweeps" using mutual funds may involve more steps for federal savings associations than for national banks, but are permissible under applicable law.

Federal savings associations that wish to offer mutual fund "sweeps" through a service corporation have two options. Either the service corporation never holds mutual fund shares in its own name, so the type of mutual fund investments are unrestricted. Or, the service corporation holds the mutual funds in its own name and restricts the investments to those that savings associations can make. Savings associations may invest only in investment grade corporate debt securities.

An alternative method to structure a "sweep" is to invest excess cash of a checking account into repurchase agreements ("repos"). Such arrangements must comply with the Government Securities Act of 1986, as amended. See Thrift Activities Handbook, Section 563, Government Securities Act. Although permissible, this method is somewhat cumbersome because it requires substantial disclosures and a perfected security interest under state law for each sale subject to repurchase.

The simplest and most practical "sweep" arrangement is the so-called linked account "sweep" using two accounts at the same depository institution, one a checking account and the

other some type of interest-bearing, non-checking account, such as a savings account or money market deposit account. However, the federal banking agencies have not allowed linked account "sweep" arrangements, either because these "sweeps" appear to evade the prohibition on paying interest on commercial checking accounts or, in the Federal Reserve Board's ("FRB's") case, because they interfere with the "FRB's" monetary policy.

## BORROWED FUNDS

Borrowings provide thrifts with a complementary and often attractive alternative to deposits as a source of funds. Generally, thrifts pursuing a strategy of moderate growth find borrowing an attractive funding alternative to retail deposits. However, rapid growth based on short-term borrowed funds, without well-established risk management controls, has also contributed to the failure of several financial institutions.

The thrift's present and anticipated use of borrowed funds should be integrated into the overall goals and objectives of the business plan and its funds management strategy. Borrowing is subject to criticism if precipitated by poorly planned funds management practices. Prudent management of borrowed funds should include:

- The clear identification of the purpose of the borrowing;
- Analysis of present and anticipated funding and liquidity needs;
- Analysis of the cost of the borrowing (including the desired spreads between the cost of the borrowing and the earnings from the assets funded, and, if issuing securities, the cost of issuance);
- Analysis of the availability of collateral;
- Comparative analysis of the costs of various alternative types of borrowings and deposits; and
- Frequent monitoring of the borrowing activity to ensure that it remains appropriate to the thrift's overall goals of interest rate risk man-

agement, liquidity management, funds management, and near-term and longer-term profitability.

Many thrifts have become active solicitors of funds in the financial markets through transactions such as reverse repurchase agreements and various debt security issuances. Access to the financial markets and the cost of such borrowings is related to the thrift's credit reputation, which is primarily based upon the thrift's financial condition and adequacy of capital.

Although borrowings in the financial markets can be an attractive alternative to deposits, they have certain costs and risks that must be considered. Borrowings through debt issuance have operating costs that should be considered such as issuance expenses and investment banker fees. A more important consideration is that thrift borrowings typically are collateralized. The amount that a thrift can borrow is related to the market value of the collateral. When interest rates increase, the market value of most financial collateral declines. Consequently, rising interest rates often require a thrift to pledge additional collateral or repay some debt. Such rising-rate scenarios can place a considerable strain on the thrift's liquidity. In a rising-interest rate environment, the thrift's financial condition will also be negatively affected if it has a significant mismatch of short-term borrowings financing long-term assets that are required to be held as collateral for borrowings.

Securities that are collateralized by direct obligations of or are fully guaranteed as to principal and interest by the United States or any agency thereof should not be "sold" in repurchase agreements under \$100,000 with maturities of 90 days or more unless they meet the requirements under § 563.84 of the OTS regulations. In addition, the OTS considers the following to be "agencies" for the purposes of government repurchase agreements:

1. Federal Home Loan Bank(s) (FHLB) (including time deposits and overnight deposits). Note: FHLB overnight deposits are eligible collateral for retail repos only if a security interest may be perfected in such account as required in § 563.84(b)(3).

2. Federal National Mortgage Association
  3. Government National Mortgage Association
  4. Bank(s) for Cooperatives, including the Central Bank of Cooperatives\*
  5. Federal Land Bank(s)\*
  6. Federal Intermediate Credit Bank(s)\*
  7. Tennessee Valley Authority
  8. Export-Import Bank of the United States
  9. Commodity Credit Corporation
  10. Federal Financing Bank
  11. Federal Home Loan Mortgage Corporation
  12. Student Loan Marketing Association
- \* Federal Farm Credit Banks

### Major Sources of Borrowed Funds

#### *Federal Home Loan Bank Advances*

A traditional source of borrowing has been FHLB advances. The FHLB policies determine the types of advances, terms available, and any commitment fees. FHLB advances may be short- or long-term and may be secured or unsecured. An institution may use mortgages or other assets including notes secured by loans, funds on deposit with the FHLB, and obligations issued, insured, or guaranteed by the U.S. Government as security for an advance. Whether an advance is otherwise unsecured or secured, the institution's FHLB stock is pledged against all advances.

The Federal Housing Finance Board (FHFB) also determines the availability of FHLB advances to member institutions. An FHLB will not make new advances available to a tangibly insolvent member without advance request to the FHLB and notification of the FHFB. Such advances may be renewed for up to 30 days at the discretion of the FHLB. Requests from the OTS or FDIC that an FHLB not renew advances will be honored and must be submitted through the FHFB. For an institution that fails one or more capital requirements, an FHLB may make new advances as long as the institution

is tangibly solvent. Such a member institution's access to advances may be limited or eliminated by an FHLB at the written request of the OTS or FDIC through the FHFB.

#### *Reverse Repurchase Agreement*

Reverse repurchase agreements (reverse repos) with investment broker/dealers are commonly used by thrifts as a short-term source of funds. Reverse repos are collateralized borrowings wherein the thrift "sells" securities to a broker, agreeing to repurchase the same securities at a specified price and date.

Any repurchase agreement program should be authorized by a savings association's board of directors only after consideration of the association's financial plan, operational system, and risk controls. An association must create and maintain a system of appropriate internal control procedures similar to those instituted for other debt securities issuances and structured financings. Associations must comply with the federal securities laws, as well as with other regulatory and fiduciary requirements. Board minutes relating to the initial approval and subsequent review of such programs should also reflect compliance with all applicable OTS and Securities and Exchange Commission (SEC) requirements. As a result, any repurchase program authorization should document the board of directors' consideration of these matters and the conclusions should be recorded in the board's minutes. An association's repurchase agreement program must also be monitored closely by association management with appropriate expertise and experience in managing repurchase agreement programs.

As with any securities offering, the thrift should follow the regulatory requirements found in 12 CFR §§ 563.76, 563.80, 563.84 and Part 563g of the OTS regulations.

In order to satisfy the requirements of §563.84(b)(3) that the interest of a repurchase agreement purchaser in the security or securities underlying the repurchase agreement constitutes a perfected security interest under applicable state law, an issuing institution must structure its repurchase agreement program as a secured lending

transaction. Repurchase agreement programs structured as a sale by the institution of undivided fractional interests in a government security or a pool of government securities, subject to the institution's obligation to repurchase those interests, do not satisfy the requirements of § 563.84(b)(3).

The issuance of repurchase agreements constitutes securities offerings and are subject to the requirements of the federal securities laws. These requirements include registration under the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940, unless exempted or the association's program is operating within the parameters of a "no action" position. Thrifts must comply with the OTS requirements related to securities offerings set forth in 12 CFR Part 563g, which applies the Securities Act and Securities Exchange Act specifically to thrifts under OTS jurisdiction.

The anti-fraud provisions of the federal securities laws also are applicable to repurchase agreement programs and may result in the imposition of severe sanctions against an association's directors and managers, including civil and criminal liability. These anti-fraud provisions prohibit fraudulent conduct, including making false or misleading representations in offering materials, advertisements, or otherwise if related to repurchase agreements.

If similar but not identical securities are sold and repurchased, they are referred to as dollar reverse repurchase agreements (dollar reverse repos) or dollar rolls. Reverse repos, wherein identical securities are exchanged, are accounted for as financing transactions. Depending on the terms of the agreement, dollar reverse repos are accounted for either as financings or as purchase and sales. For accounting purposes, dollar reverse repos can be considered financings if the securities returned at the repurchase date are "substantially the same" as the securities "sold" at the origination date. If the returned securities are not substantially the same, the transaction becomes a sale for accounting purposes.

*Substantially the Same.* Securities are considered substantially the same when they have similar characteristics and similar yields. The issuer, coupon interest rate, maturity, and anticipated

prepayments of the underlying loans must all be consistent to be considered substantially the same. The issuer of the security (e.g., GNMA or FHLMC) is important because differences exist in relative creditworthiness. Loans packaged into a pool security must yield the same composite interest rate and have similar maturities. For example, GNMA issues two general types of securities: GNMA I's (characterized by loans with little deviation in individual interest rates with 30-year terms and from a similar geographic area) and GNMA II's (characterized by loans with a wider spread in their individual interest rates with 15- or 30-year terms and with more geographic diversity). Therefore, because of differing characteristics, a GNMA I generally cannot be exchanged for a GNMA II and fulfill the substantially same criteria. Exchanges of GNMA I's for GNMA II's must be reviewed individually to determine that the securities have similar yields and maturities in order to be considered substantially the same.

**Over-Collateralization.** One of the primary sources of risk in reverse repo is required over-collateralization. Excessive over-collateralization of reverse repos is an unsafe and unsound practice that poses a serious risk to the earnings and assets of the institution. Should the purchaser be unable for any reason to redeliver the securities upon maturity of the repurchase agreement, large losses would result. The term of the agreement, the type of collateral transferred, and the likelihood of market value fluctuations in the value of the collateral are the primary determinants of the collateralization level necessary for reverse repos. The percentage of collateralization is based on the market value, not the face value, of the securities at the time of the transaction.

Typical collateralization levels required by reputable broker-dealers approximate the following:

*Type of Security/ Term of Agreement*

U.S. agency securities/	
less than 1 month	2%
1 month	3-4%
2 month	4-5%
3 month	5-6%
U.S. government notes/	
1 month	1/4%
2 month	1/2%
3 month	3/4%
U.S. government bonds/	
1 month	1/2%
2 month	1%
3 month	1-1/2%
Collateralized mortgage obligations*	
1 month	5-7%
2 month	6-8%
3 month	7-9%

Riskier securities, such as stripped mortgage-backed securities, planned amortization class, targeted amortization class, and collateralized mortgage obligation residuals, have substantially higher and wider-ranging collateralization requirements.

Collateralization levels in excess of these for U.S. agency or government securities should necessitate further review and comment by the regulator and the board of directors' awareness and involvement in the transaction. For all such transactions, thrifts should attempt to minimize the necessary collateralization requirements by contacting several reputable brokers to obtain quotes. These quotes should be documented.

**Counter-Party Risk.** Excessive over-collateralization is not the sole risk factor affecting reverse repurchase agreements. The strength of the counter-party is also critical to minimizing risks to the thrift. Thrifts should routinely monitor the creditworthiness of counter-parties. At a minimum, this should include

\* For institutions with capital (excluding goodwill) exceeding \$16 million. Smaller institutions would require a minimum of 20 percent, and often much more, to effect these transactions.



determining whether the counter-party is a primary dealer and length of time in business, reviewing counter-party reports filed with the SEC, reviewing financial statements of the counter-party with respect to capital levels, evaluating previous experience with the dealer, and researching the reputation of the counter-party with the SEC and the National Association of Securities Dealers.

Regulators should also review provisions for the assignment of collateral, rights to rehypothecate, and collateral maintenance practices for reverse repurchase agreements.

To satisfy the requirements of § 563.84(b)(3) -- that the interest of a repurchase agreement purchaser in the security or securities underlying the repurchase agreement constitutes a perfected security interest under applicable state law -- an issuing institution must structure its repurchase agreement program as a secured lending transaction. Repurchase agreement programs structured as a sale by the institution of undivided fractional interests in a government security or a pool of government securities, subject to the institution's obligation to repurchase those interests, do not satisfy the requirements of § 563.84(b)(3).

*Short Funding.* Some thrifts fund the purchase of mortgage-backed securities (MBSs) by entering reverse repos. If there is a significant difference between short- and long-term interest rates (yield curve is positively sloped), sizable spreads can be achieved. However, these spreads can be achieved only by assuming a significant amount of interest-rate risk. If the dollar amount invested in this strategy comprises a significant percentage of assets or exceeds explicit exposure limits required by the board of directors in accordance with TB 13, Responsibilities of the Board of Directors and Management with Regard to Interest Rate Risk, the strategy may be considered unsafe and unsound.

#### *Collateralized Mortgage Obligation (CMO)*

Thrifts issuing CMOs use MBSs or mortgage loans to collateralize the CMO security. A CMO is structured so that the cash flows from the underlying collateral, given conservative prepayment and interest rate level assumptions, are sufficient to repay, with stated interest, the obligation arising

from the issuance of the CMO. A high investment rating, resulting from conservative prepayment assumptions, coupled with the CMO's various maturity structures and interest rates provides appeal to a broad range of investors.

The issuer of a CMO agrees to pay monthly, semi-annually or quarterly coupons on the outstanding bond value and to retire the bond principal according to prescribed structure. For instance, a CMO structure is characterized by classes, or "tranches." Typically, the tranches may consist of: (1) a short-term, fast-pay tranche, (2) a short-intermediate tranche, (3) a long-intermediate tranche, and (4) a slow-pay, zero-coupon ("Z" or "accretion") tranche. In a CMO, some tranches receive a coupon, while other tranches receive principal payments from the collateral as well. When the first tranche is retired (paid-off), the second tranche receives principal, and so on. Normally, the class with the shortest maturity receives all of the principal prepayments until it is retired. In the interim, the zero-coupon tranche accrues interest, which is added to its principal balance, resulting in negative amortization. Once faster paying tranches are retired, the zero-coupon tranche begins to receive payments on the then-higher principal.

In recent years, CMOs have been structured ranging from a single class to dozens of classes. Some CMOs contain floating-rate tranches in which the bond coupon is periodically readjusted based on an index, typically the London Interbank Offering Rate (LIBOR). A "straight" floating-rate tranche moves in the same direction as changes in the index; an "inverse" floating-rate tranche moves inversely to changes in the index. Many CMOs contain a planned amortization class (PAC) or targeted amortization class (TAC) tranche designed to provide investors increased protection against prepayment risk. PAC and TAC tranches transfer risk to the non-PAC and non-TAC tranches. Tranches that are specifically designed to absorb prepayment risk from PAC and TAC tranches are referred to as "support classes."

The effective interest rate (effective cost to the issuing thrift) and the term of the borrowing arising from the CMO will depend upon the repayments of the collateral underlying the CMO.

Also considered in the interest rate on the borrowing are the costs of issuing the CMO (legal, accounting, and other costs). These costs will be amortized over the expected life of the CMO. Therefore, faster prepayments of the underlying collateral will require a faster write-off of the expenses increasing the effective cost. It is very important to determine where the proceeds from the CMO are invested. Since the term and effective interest rate of the CMO will vary based upon prepayments of underlying collateral, it is important to determine the expected return from the assets in which the proceeds from the CMO are reinvested. The expected term of these assets should be determined.

Residual cash flows arise due to the conservative assumptions required by rating agencies to be used in structuring the CMO and assessing the characteristics of the underlying collateral to ensure that the CMO is self-supporting. To the extent that actual cash flow exceeds these conservative assumptions, "excess" or residual cash flows are created. The residual interest represents the present value of all amounts expected to revert to the issuer or its affiliates (including reinvestment earnings).

The shorter CMO tranches will generally bear a lower interest rate than the underlying mortgages that are collateral for the issuance. This means that during the early life of the CMO, the issuer will receive income in excess of the interest expense it pays, while during the later years, the income will be less than the interest expense it pays to the CMO holders. The excess of income over the interest expense during the early life of the CMO is known as phantom income. Since it will be offset in later years, it is not income in the real economic sense. This phantom income is accrued to the issuer as the holder of the residual interest and will be transferred to buyers of the residual interest.

Frequently, thrifts have established a finance subsidiary to issue a CMO. In the past, one benefit of issuing a CMO through a finance subsidiary had been the exclusion of the CMO security from the thrift's minimum capital requirement calculation. However, under the present capital regulations, this exclusion is eliminated. Effective January 1, 1997, specific authority for finance subsidiaries

contained in former 12 CFR § 545.82 was removed and all existing finance subsidiaries are deemed operating subsidiaries under 12 CFR § 559.11. All the functions of a finance subsidiary may be done with fewer restrictions by an operating subsidiary.

Effective January 1, 1987, REMIC legislation permitted various security structures such as CMOs, senior subordinated interests, and regular pass-through securities to be issued under the REMIC tax authority. The REMIC legislation provided flexibility in structuring multiclass mortgage securities as asset sales or financings subject to GAAP accounting standards. For example, a thrift using MBSs with unrealized losses as underlying collateral will likely choose to classify its CMO issuance as a financing, rather than a sale, for financial reporting to avoid recording the loss. However, for tax purposes, under REMIC treatment, the transaction can be structured as a sale to record the losses and thus reduce the tax liability. Prior to the REMIC legislation, if sale treatment was desired, CMO transactions needed to pass very stringent tests. Although the transaction could theoretically pass the tests for accounting purposes, the result was almost inevitably unacceptable from a tax viewpoint.

The underlying collateral of CMOs structured to meet the GAAP standards for a sale of assets are treated as if sold, and the liability associated with the issue does not appear on the issuer's financial statements. If the transaction is treated as a financing, the MBSs or mortgages stay on the issuer's books and the balance sheet is simply grossed up to reflect the cash received from the offering and the related liability under the bonds. (Any costs incurred are deferred and amortized over the life of the liability.)

#### *Other Sources of Borrowed Funds*

Common sources of thrift borrowed funds include the following:

- Federal funds purchased (commercial bank loans).
- Issuance of various other debt securities.

- Retail reverse repurchase agreements.
- Loans from a parent or affiliate.
- Loans secured by the thrift's office building.
- Underlying mortgage in a wrap-around loan unless the holder of the underlying mortgage has accepted a subordinate position.
- Liabilities for capital leases related to the institution's offices or premises and equipment.
- Redeemable preferred stock issued by consolidated subsidiaries to third parties.
- Commercial paper issued.
- Eurodollars issued.
- Liability from "sale" of loans with recourse accounted for as a financing.

Also considered a source of borrowed funds are overdrafts in the institution's transaction accounts in other depository institutions, where there is no right of offset against other accounts in the same financial institution, unless the overdraft is in a zero-balance account or an account that is not routinely maintained with sufficient balances to cover checks drawn in the normal course of business.

### Deposits/Borrowed Funds Analysis

#### *Cost and Risk Analysis*

Management should analyze and monitor the deposit and borrowing composition to determine the effect of the financial costs on the net interest margin and profitability, and to assess the risks associated with these liabilities. The analysis should assist management in determining an acceptable liability mix. The regulator should evaluate the adequacy of management's analysis and its monitoring systems. Cost and risk analysis should include:

- The identification of the overall rate/volume/mix of deposits and of borrowings and the periodic evaluation of changes (variance) in interest expense due to changes in rate/volume/mix.

- An evaluation of the risk/benefit trade-offs of the various sources of funds. (See discussion of risk/benefit trade-offs below.)
- A procedure to estimate the effect of an instantaneous and sustained shift in interest rates of  $\pm 100$ ,  $\pm 200$ ,  $\pm 300$ ,  $\pm 400$  basis points on the net portfolio value of deposits and borrowings. (Refer to Thrift Activities Handbook Section 650, Interest Rate Risk Management, for detailed discussion.)
- An analysis of the marginal cost to generate additional funds.
- An analysis of the potential effects on profitability of paying below-market rates on deposits.

#### *Risk/Benefit Trade-Offs*

Management should not attempt to increase net interest income by merely increasing the level of risk in the liability structure without adequately analyzing and evaluating the risk/benefit trade-offs. Examples of risk/benefit trade-offs include:

*Retail versus brokered (including money desk) deposits:* Retail deposits generally are more stable and less interest costly than brokered deposits, but usually carry higher operating costs and are limited in total volume by the size of the local market area and the competition within the local market area. Brokered deposits, although usually higher risk in terms of volatility and interest costs, nevertheless, may be appropriate for some thrifts, provided that they are well-capitalized, or have a waiver from the FDIC permitting them to offer brokered deposits if they are adequately capitalized.

*Borrowings versus deposits:* Borrowings can provide a large volume of funds quickly, while retaining current deposit pricing strategies. The cost of certain large-volume borrowings (e.g., certain issuance costs, effective reverse repo rates) may benefit from economies of scale. However, borrowings introduce collateral risk. Depending upon their maturity and payment characteristics, an increase in either borrowings or deposits may aggravate interest rate risk.

Thrifts generating large volumes of volatile short-term deposits or accessing large volumes of short-term borrowings should evaluate the feasibility of hedging to alleviate their interest rate risk. (Refer to Thrift Activities Handbook Section 660, Hedging.)

*Marginal Cost Analysis*

When interest rates are changing, average cost and marginal cost of deposits will differ. Consideration of marginal cost is especially appropriate for monitoring and evaluating the cost of new deposits. When rates are rising, the true cost of acquiring new deposits (marginal cost) will be greater than the simple average of the incremental cost of a higher rate paid on new deposits and an unchanged cost on existing deposits. The higher rate must be paid not only to the new depositors, but also to the existing depositors who would have been willing to hold deposits at the lower rate. The larger the volume of existing accounts, the higher the marginal cost. In addition, the cost of servicing accounts will rise as deposits increase. Moreover, an increase in the rate at one maturity level might necessitate a change in rate at other maturity levels. The reaction of competing thrifts should also be considered in setting interest rates on deposits.

Analysis of the true cost of additional deposits places management in a better position to control these costs. Some thrifts have paid high rates to attract new deposits, resulting in a marginal cost that exceeds the return on the loans and investments funded by those deposits. Such conditions encourage decisions to relax loan and investment credit underwriting standards.

Marginal cost analysis may not be as appropriate for monitoring and evaluating the cost of additional borrowings because the rate paid on new borrowings is limited to the incremental funds raised, not total funds. However, a comparative analysis of the marginal cost of new deposits to the incremental cost of new borrowings should be done. (See Thrift Activities Handbook Section 530, Cash Flow and Liquidity Management.)

*Below-Market Rates*

Thrifts considering a strategy to shrink the balance sheet by paying below-market rates on deposits must research their market. A primary risk of the strategy is underestimating the expected deposit outflow. The rate sensitivity of deposits differs from product to product, among different locations, and among different customer groups.

The effect of a below-market rate strategy on profitability may be approximated by comparing estimated cost savings (represented by the expected volume of deposit outflow times the rate that had been paid on these deposits; plus the cost savings represented by the spread between the market rate and the below-market rate paid on the remaining deposits); with the estimated cost (represented by the yield given up on interest-earning assets expected to be sold times the volume expected to be sold, and/or the cost of any anticipated new borrowings needed to replace the deposit outflow as a continuing funding source).

**REFERENCES**

**United States Code (12 USC)**

*Chapter 16: Federal Deposit Insurance Corporation*

§ 1831f      Brokered Deposits

**Code of Federal Regulations (12 CFR)**

*Federal Deposit Insurance Corporation  
Subchapter B: Regulations and Statements of General Policy*

§ 337.6      Brokered Deposits

*Office of Thrift Supervision*

§ 545.16      Public Deposits, Depositories, and Fiscal Agents  
Part 557      Deposits  
§ 561.16      Demand Accounts  
§ 561.28      Money Market Deposit Accounts  
§ 561.29      Negotiable Order of Withdrawal Accounts  
§ 563.80      Borrowing Limitations

§ 563.81	Issuance of Subordinated Debt Securities and Mandatorily Redeemable Preferred Stock	<b>Office of Thrift Supervision Bulletins</b>	
§ 563.84	Transfer and Repurchase of Government Securities	RB 3b	Policy Statement on Growth for Savings Associations
§ 563.174	Futures Transactions	TB 13	Responsibilities of the Board of Directors and Management with Regard to Interest Rate Risk
§ 563.175	Financial Options Transactions		
Part 563g	Securities Offerings		